# PRODUCT DATA SHEET **QDB**

## QuicDiamond™ Basket Assembly



# TAPERED PLATE DOWELS FOR SAW-CUT CONTRACTION JOINTS

The QuicDiamond™ Basket Assembly provides a wide cross section of steel to reduce bearing pressure on concrete to deliver highly reliable joint stability in industrial concrete slabs on ground. The QDB provides greater load transfer efficiency at wheel point and group doweling, reducing differential deflection across the joint and minimizing joint spalling. The tapered design accommodates axial and lateral slab movement, reducing restraint cracking and enhancing joint filler performance by keeping joints narrow and plumb.

#### The QDB Basket Assembly provides:

- · Greatly reduced bearing pressure at the joint
- Optimized amount of steel in the joint where it is needed most
- Greater Load Transfer Efficiency
  <.01" for small diameter wheeled traffic</li>
  <.02" for large diameter soft wheeled traffic</li>
- Highly limited differential flection across the joint to mitigate joint spalling
- Tapered geometry and factory debonding allows joints to activate without restraint from shrinkage during hydration
- Basket assemblies can easily be moved onsite to proof-roll the slab subbase



 BoMetals Dowel Comparator Tool to demonstrate anticipated performance

#### **Basket Construction:**

- Dowels are saw cut from ASTM A36 carbon steel and deburred
- Solid constructed framework to maintain positioning across rigorous jobsite conditions
- Welded assembly to locate the dowels at the specified slab mid-depth
- · Dowel geometry in accordance with ACI 360
- Factory applied concrete debonding agent to eliminate dowel greasing in the field
- Automatic factory assembled to maintain quality control
- Constructed from recycled USA Steel (LEED information available)

#### **Basket Dimensions:**

3" Cross Sectional area of steel at the outside edge of the saw-cut joint.

12" Dowel Length (allowing 4" embedment and 2" tolerance) for all dowel thickness -3/8", 1/2", and 1/4", and 1/4", and 1/4" is a small dowel thickness 1/4", and 1/4", and 1/4", and 1/4", and 1/4" is a small dowel thickness 1/4", and 1/4", and 1/4" is a small dowel thickness 1/4".

#### Finishes Available:

- Plain A36
- · Factory debonded

| Slab<br>Depth                               | QuicDiamond™ Dowel Dimensions      | On Center<br>Spacing |
|---|------------------------------------|----------------------|
| 5 - 7"                                      | 3/8" thick x 3" width x 12" length | 18" - 24" *          |
| 7 - 9"                                      | 1/2" thick x 3" width x 12" length | 18" - 24" *          |
| 10"+  | 3/4" thick x 3" width x 12" length | 18" - 24" *          |
| * Additional "On Center" spacing available. |                                    |                      |

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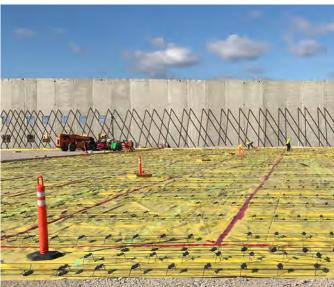
Founded in 1989, BoMetals has become an industry leader in the design and manufacture of concrete and masonry accessories.

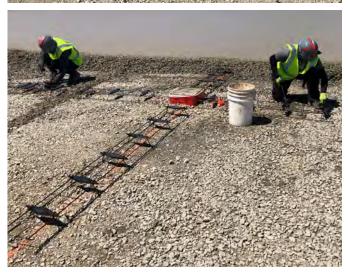
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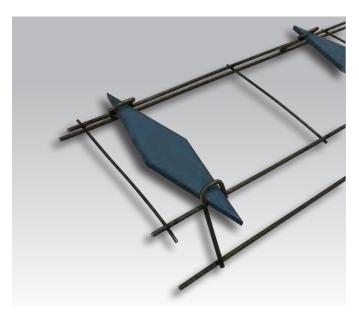






#### **BEST INSTALLATION PRACTICES**

- Baskets installed on subgrade can be held in place by the concrete pumped or tailgated directly on top of the basket. The weight of the concrete holds the basket in place.
- Baskets on vapor barrier can be taped to the vapor barrier if required
- Baskets can be staked in place to ensure the widest cross section in the joint center line - the BoMetals QDB provides the greatest cross section of steel in the industry for a single dowel and a greater load transfer efficiency within the joint when accounting for dowel grouping
- Dowel baskets can be custom fabricated to locate the first dowel within 6"-12" of the joint intersection.
   Providing more support where curling stresses can be highest, mitigating corner cracks.



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